Content Creation, Digital Repository and Dissemination through Digital Learning Initiatives

Success Story

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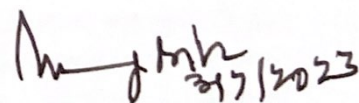
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Preface

The present work is composed of the success story of the Human Resource Development Centre, Guru Jambheshwar University of Science & Technology, Hisar. This is the virgin attempt to explore, discover and innovate some new vistas of 21st century skills which are also incorporated into New Education Policy 2020. These new vistas are based upon the Equitable Use of Technology through creating and developing own e-content and maintaining a Digital Repository to disseminate Digital Learning Initiatives. For this, an idea has been visualized to design and develop a Digital Repository in form of a YouTube Channel. Since this is the in conception phase, the number of videos are less, but within a short span of time, it will be much more. SWAYAM MOOCs have their own grace and importance. So, the report of the ARPIT courses which were developed under the flagship of the Human Resource Development Centre, Guru Jambheshwar University of Science & Technology, Hisar has been summarized with facts and figures. After grabbing techno pedagogical skills, an international project from the University of Nova Gorica and UNESCO Chair on Open Technologies for Open Educational Resources (OERs) and Open Learning under the flagship of OEBW mentoring program titled Emergency Remote Teaching: Response of Pandemic Pedagogy as a New Normal Teaching has been designed and delivered. Two other attempts viz. Blog and Online Radio have also been initiated to enhance skills among teachers.
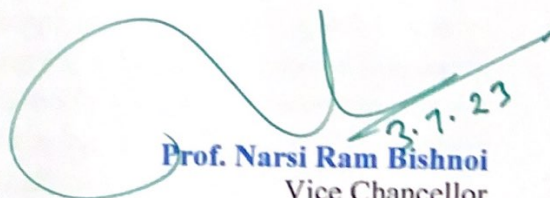
Prof. Neeraj Dilbaghi
Guru Jambheshwar University of Science & Technology, Hisar
Haryana.

Foreword

The New Education Policy 2020 (NEP) strongly focuses on the extensive use of technology-enabled education to remove language barriers and bring equity, access, and equality in educational opportunities. Technology enables the resources to transform into digital resources, e- repositories and other digital initiatives that make educational experiences more enjoyable and give competence. COVID-19 brought a bundle of innovative pedagogies such as blended learning, flipped classroom models, virtual classrooms, gamification, digital form of assignments, assessments for academic world.

21st century had transformed the whole educational system and the role of the teacher also needs to be revitalized. All HRDCs will have to change their ambience now and must take a swift walk in line with the prerequisites of 21st century learning standards. There must be rigorous training for teachers so that they can enable themselves to access, generate and create their e-content. All faculty members need to learn how to blend digital resources appropriately in the teaching-learning process with a focus on knowledge creation, knowledge generation, and knowledge preservation. I congratulate HRDC Guru Jambheshwar University of Science & Technology, Hisar for generating Content Creation, Digital Repository and Dissemination through Digital Learning Initiatives. This endeavor encourages faculty members to give new wings to their teaching styles and adopt the guidelines of NEP 2020 for making a hybrid learning environment in their classrooms.

3.7.23

Prof. Narsi Ram Bishnoi
Vice Chancellor
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Haryana.

1. Content Creation, Digital Repository and Dissemination

The prerequisite of 21st century learning standards is basically focused on techno-pedagogical skills and directed to the emergence of an Institutional Digital Repository to preserve, create and disseminate the ocean of knowledge at the international level with the local context. Open Educational Resources (OERs) are now become supportive hand for achieving the best outcome of New Education Policy 2020 for ensuring equity, equality, and access for achieving quality education for all. The e-content is of no value if it is not widely disseminated among the common masses. E-Content facilitates blended learning, flipped classrooms, and Massive Open Online courses. Higher Educational Institutions are emblems of quality, excellence and leverage the growth and development of the nation in social, economic, cultural, political, and scientific aspects.

Chapter 24 of NEP 2020 New National Education Policy for India strongly lays emphasis on Online and Digital Education: Ensuring Equitable Use of Technology. It requires a digital repository of content including the creation of e-content and Open Educational Resources to generate and support the Digital Learning Environment. A Digital Learning Environment is the collection of resources that teachers can use to customize their approach to teaching and learning with technology. A digital repository is an instrument for managing and storing digital content. Repositories can be subject or institutional in their focus. Content creation is the process of generating topic ideas that appeal to learners, creating written or visual content around those ideas and making that information accessible to your audience as a blog, video, or other content formats. The nature of Education is drastically transforming the nature of educational processes. The need of the hour to initiate digital technologies in relation to pedagogical innovations is not only necessary but a mandatory requirement. This is challenging for teachers and policymakers to prepare themselves for being competent in imparting education to our digital natives.

COVID-19 had brought a digital learning environment blessing in disguise. Educational institutions are now prepared for adopting hybrid learning environments in form of blended learning and emergency remote teaching. This pandemic had given big support to NEP 2020 New National Education Policy for energizing, motivating, and dynamism in young faculty and researcher. After visualizing the wonderful results of Digital Learning endeavours besides some harmful effects, every individual is looking for great achievements, accomplishments, and excellence toward new learning circles, learning endeavours, and research. Before COVID-19, educational technology in the form of technology in education and technology of education was not popular in the academic and non-academic world. The word ICT was confined to PowerPoint, Email and MS office but now after Corona outbreak, there are so many words like

virtual classrooms, learning with videos augmented reality, Artificial Intelligence and Learning Management systems which are now popular in educational institutions. Now, there is an utmost requirement of rigors training of faculty to train them in adopting, adapting, and improvising the teaching pedagogies with regard to their stream and subject. E-Learning or Digital Learning has been perceived as a mechanism for designing emergency remote teaching and flexible learning environments to cater to the need of all stakeholders keeping in mind the differential instructions and varying learning styles.

Here comes the role of Human Resource Development Centres under the flagship of the University Grants Commission to enrich the academia in exploring and polishing teaching skills based on ICT and Non-ICT based pedagogies.

This is the conceived slogan of the National Resource Centre, Guru Jambheshwar University of
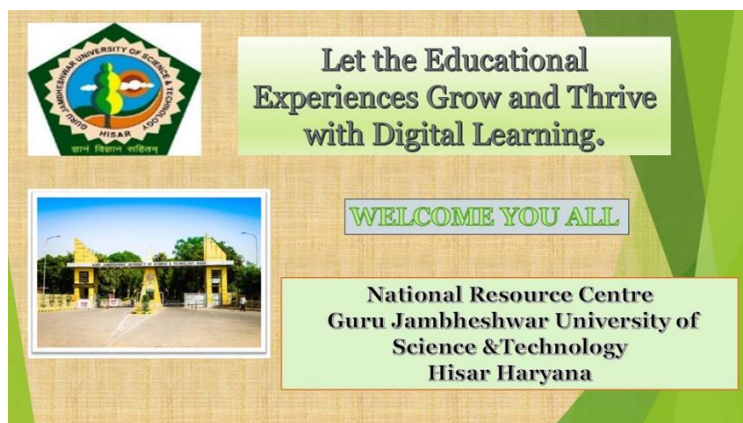
Science & Technology, Hisar. The entire focus is on the digital transformation of content, delivery mechanisms and instructional strategies based on pedagogical innovations with reference to 21st century skills. While transferring the learning environment with a big vision and mission, it is necessary to remember that technology can never replace a great teacher but in the hands of a great teacher, it can be transformational. We must not be slave to technology, but technology is to be a slave. With this perspective, HRDC GJUS&T, Hisar has explored the concept of NEP 2020 about Online and Digital Education: Ensuring Equitable Use of Technology through creating and developing its own e-content and maintaining a Digital Repository to disseminate Digital Learning initiatives. In this endeavor, there were so many workshops that were organized for teachers to train them in generating their own e-content through various digital tools. This is a proud statement of HRDC GJUS&T, Hisar that before COVID-19, A MOOC course had been launched to train the teachers to utilize digital tools and techniques for their learning endeavors. Most teachers were ready to accept the change which was knocked by the pandemic call. The initiatives of HRDC GJUS&T, Hisar follow as such:

- YouTube
- SWAYAM MOOCs
- MOOCs (International Perspective)
- Blogs
- Online Radio

2. E Content

The content which are created and delivered through electronic media is called e-content. Video as an e-content is quickly becoming popular among all. You-Tube is not only the kingdom of digital entertainment but it can also be a great environment for learning as of now. It has developed into a prominent online video-sharing destination. This also has visualized millions of video clips that arouse interest, curiosity, and innovations in learning endeavors and are famous among educators to bring cinema into the classroom for better learning outcomes. With this outlook, HRDC GJUS&T Hisar has designed its own you- tube channel i.e., https://www.gjust.ac.in/hrdc/

There are 80 videos on the HRDC webpage which were developed with the coordination of faculty members of different institutions under the umbrella of HRDC GJUS&T Hisar. This endeavor is entitled as "Digital Initiatives" ARPIT- 2018 and ARPIT- 2019.
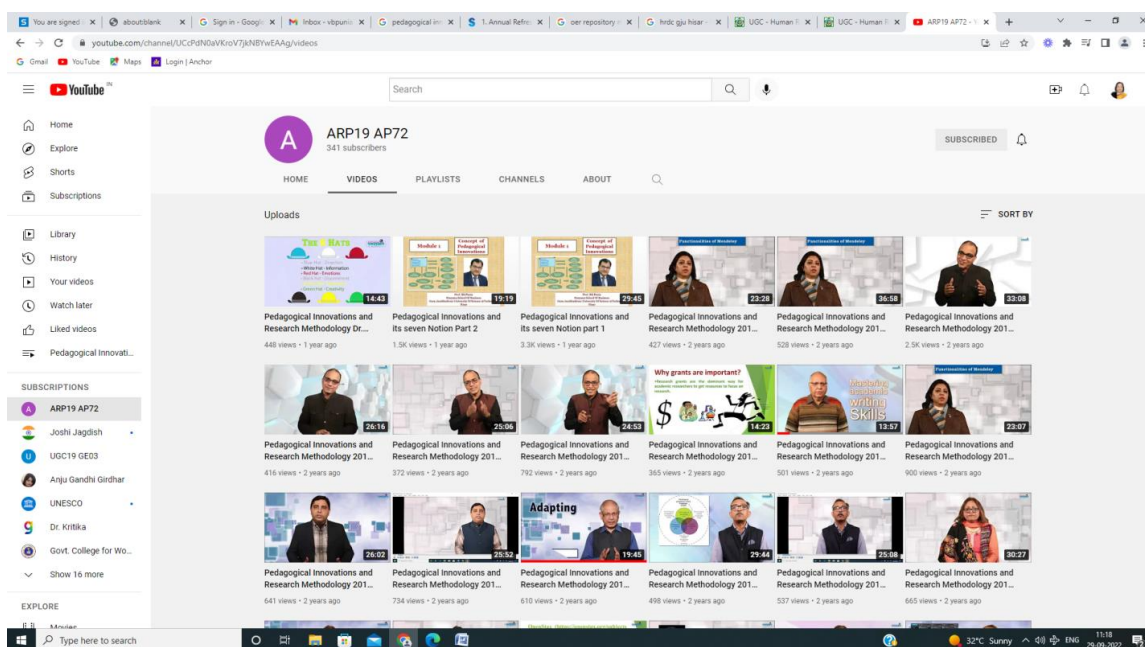

Figure 1 *HRDC GJUS&T Hisar: you- tube channel. https://www.gjust.ac.in/hrdc/*

1. ARPIT 2019:
 https://www.youtube.com/channel/UCcPdN0aVKroV7jkNBYwEAAg/videos

In this channel, there are eighty videos that can be utilized as OERs in designing and developing MOOCs and also support blended learning and flipped classroom models. These videos help the teachers in generating and supporting Digital Learning Environment. These are having creative commons licenses and these can be used freely and openly. These are OERs. Teachers can utilize these videos as an open educational resources in flipped classrooms/blended learning. This initiative can be used in designing and developing MOOCs also.

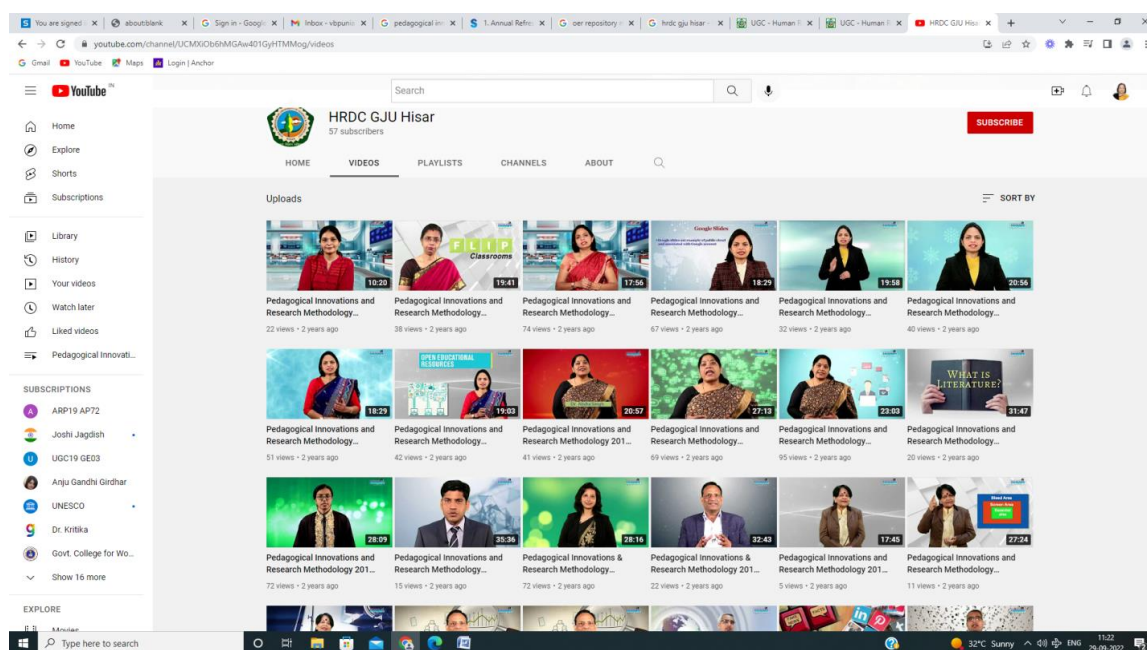| Sr.	Content Presenter	Topic	Video link
1.	Prof. BK Punia, HSB, Guru Jambheshwar University of Science & Technology, Hisar.	Pedagogical Innovations and its seven Notion	https://youtu.be/dv7HwmfT-IQ https://youtu.be/E-pifU_XxqI
2	Prof. Neeraj Dilbaghi, Guru Jambheshwar University of Science & Technology, Hisar.	Innovative Ideas for 21st Century	https://youtu.be/_i4_9NxCbdQ https://youtu.be/KP9FG-ugRAA
3	Dr. Madhuri Hooda MDU, Rohtak	Pedagogical Innovations with the use of ICT	https://youtu.be/1KKvGnxeeMk https://youtu.be/XX1JwF3H22M https://youtu.be/uJ11DkuvckY
4	Prof. Vandana Punia Guru Jambheshwar University of Science & Technology, Hisar.	Digital Assessment Tools Pedagogical Researches	https://youtu.be/L6Rdom4wkBw https://youtu.be/0u0plOnse88
5	Dr. Poonam Punia, BPSMV University, Khanpur Kalan	Digital technologies in the classroom	https://youtu.be/DSrF7hB2wK8

6	Dr. Vinod Kumar Gupta, Kurukshetra University, Kurukshetra	WebQuest Pedagogy	https://youtu.be/rRRtxp-_mDA
7	Dr. Mani Shreshtha, HSB, Guru Jambheshwar University of Science & Technology, Hisar	Brainstorming as a Pedagogical Tool for Creativity	https://youtu.be/J6VMcDpicMk https://youtu.be/SlNMYMP8F8E
8	Prof. Umesh Arya, CMT, Guru Jambheshwar University of Science & Technology, Hisar	Webinar as a Pedagogical Tool for Virtual Learning Environments Tweet Capturing and Analysis – (TCA)	https://youtu.be/OCW0pqqvxUE https://youtu.be/c4aD87JQLgE
9	Prof. Karampal Narwal, HSB, Guru Jambheshwar University of Science & Technology, Hisar	UNESCO ICT Competency Framework for Teachers Web Data Scraping	https://youtu.be/Tz0orziDyek https://youtu.be/ywVgRYPEoLI https://youtu.be/4uPvKd5ixRA
10	Dr. Anupma Sangwan, CSE, Guru Jambheshwar University of Science & Technology, Hisar	Digital Literacy and its related Concepts	https://youtu.be/GexeS_Ks2Qo
11	Prof. Vandana Punia, Guru Jambheshwar University of Science & Technology, Hisar	Digital Story telling as a Powerful Tool for 21st Century Pedagogy Flipped Classrooms	https://youtu.be/O0ZzhcOT5rs https://youtu.be/O0ZzhcOT5rs
12	Dr. Yashpal Sharma, NCERT, New Delhi	Techno-skills in Teachers of Higher Education	https://youtu.be/XEC0lQAo-4o
13	Dr. Yashpal Sharma, NCERT, New Delhi	MOOCs for Higher Education	https://youtu.be/AR8JnBBDC4s
14	Dr. Vinod Kumar Gupta, Kurukshetra University, Kurukshetra	Need to Recognize Emotions and Creativity in Pedagogies	https://youtu.be/cg8NOpqAyaU
15	Dr. Vinod Kumar Gupta, Kurukshetra University, Kurukshetra	New ideas for Designing Innovative Pedagogies; Social Emotions and Creativity	https://youtu.be/OJ2OvJmTR5k
16	Dr. Madhuri Hooda MDU, Rohtak	Development of Moodle Site and Course Structure	https://youtu.be/1KKvGnxeeMk https://youtu.be/XX1JwF3H22M https://youtu.be/uJ11DkuvckY
17	Prof. Umesh Arya, CMT, Guru Jambheshwar University of Science & Technology, Hisar	Browser Extensions for Enhanced Digital Skills	https://youtu.be/xhuaSvUBYJw
18	Dr. Ramesh C Sharma, Ambedker University Delhi, New Delhi	Open Educational Resources: An Introduction	https://youtu.be/KQHp3Xrob14

19	Dr. Ramesh C Sharma, Ambedkar University Delhi, New Delhi	Searching and Evaluating Open Source Content	https://youtu.be/tN-iH7xTKeY
20	Prof. Deepa Kauts, School of Education, Guru Nanak Dev University, Amritsar	Preparing 21st century Students for a Global society	https://youtu.be/0GtjEHlKNxQ
21	Prof. Deepa Kauts, School of Education, Guru Nanak Dev University, Amritsar	Best Practices in Use of Technology to Integrate Core Skills Into Course Content	https://youtu.be/imFuRHWgQjY
22	Prof. Deepa Kauts, School of Education, Guru Nanak Dev University, Amritsar	Pedagogic Theories and the Use of Technologies for Learning and their Applications	https://youtu.be/s8GzvQlsRVY
23	Prof. Amit Kauts, School of Education, Guru Nanak Dev University, Amritsar	Various Instructional Strategies and its Application on Content	https://youtu.be/mcM7Zw8Am04
24	Prof. Amit Kauts, School of Education, Guru Nanak Dev University, Amritsar	Teachers' Pedagogical Knowledge and Teaching Profession	https://youtu.be/9NTiymSb4YU
25	Dr. Ramesh C Sharma, Ambedkar University Delhi, New Delhi	Adapting, Using and Sharing Open Educational Resources	https://youtu.be/gZNNQQiDigg
26	Dr. Narender Chauhan, Assistant Librarian, Guru Jambheshwar University of Science & Technology, Hisar	Understanding Plagiarism and its Deterrence Tools: Need of the Hour for Academic and Research Community	https://youtu.be/4EZfRNSe7zI
27	Dr. Narender Chauhan, Assistant Librarian, Guru Jambheshwar University of Science & Technology, Hisar	Role of University Grants Commission Regulations 2018 in addressing and Curbing the Plagiarism in HEIs	https://youtu.be/8PGsfZJOvbk
28	Dr. Neha Gulati, UBS, Panjab University, Chandigarh	An Introduction to Reference Management and Citation	https://youtu.be/qkiP0XWgbVs https://youtu.be/N6GOUMrvZhg https://youtu.be/X3749MOzdys
29	Prof. Krishan K. Kapoor, Bio & Nano Technology, Guru Jambheshwar University of Science & Technology, Hisar	Mastering Academic Writing Skills	https://youtu.be/jy4Y_cQsbt0

30	Prof. Krishan K. Kapoor, Bio & Nano Technology, Guru Jambheshwar University of Science & Technology, Hisar	Formulation of Winning Research Grant Proposal	https://youtu.be/78JOaL_xKWc
31	Dr Ajay Semalty, Pharmaceutical Sciences, H.N.B. Garhwal University Garhwal	Innovation and Quality in Thesis Writing – I Innovation and Quality in Thesis Writing – II	https://youtu.be/u4wEIz3WSTo https://youtu.be/U4yCiRAsbgg
32	Dr Ajay Semalty, Pharmaceutical Sciences, H.N.B. Garhwal University Garhwal	Author Metrics Journal Metrics	https://youtu.be/8jDtST4SEGo https://youtu.be/QeG8euhvDV0

2. ARPIT- 2018

https://www.youtube.com/channel/UCMXiOb6hMGAw401GyHTMMog

Sr.	Content Presenter	Topic	Video link
1	Prof. Nasib Singh Gill, Maharshi Dayanand University, Rohtak.	Economics of 'Cloud' and Concept of Cloud Computing	https://youtu.be/2n1jc5clcCM
2	Prof. Nasib Singh Gill, Maharshi Dayanand University, Rohtak	Mobile Computing Technology	https://youtu.be/nRrRhhDR6I4

3	Prof. Nasib Singh Gill, Maharshi Dayanand University, Rohtak.	Hybrid Learning and Learning Analytics Technology	https://youtu.be/MR7B2gKmZL4
4	Prof. Nasib Singh Gill, Maharshi Dayanand University, Rohtak	Internet of Things Technology for Smart Learning	https://youtu.be/idIl2Fdma5Y
5	Dr. Madhuri Hooda, Maharshi Dayanand University, Rohtak	Exploring Digital Pedagogy as Sound Pedagogy	https://youtu.be/tcUJM1p-MLg
6	Dr. Sushmita Basker, Indira Gandhi National Open University, New Delhi	Digital Learning Environment	https://youtu.be/NUi7cudfq0Q
7	Prof. Nandita Shukla, Punjab University, Chandigarh	Digital Bloom's Taxonomy	https://youtu.be/fVpFqFTRlO4
8	Prof. Hemant Sharma, Maharshi Dayanand University Rohtak	Technological Pedagogical & Content Knowledge	
9	Prof. Nasib Singh Gill, Maharshi Dayanand University, Rohtak	Utilization of Digital Tools and Techniques	https://youtu.be/1Grlot5PZoE
10	Prof. Nasib Singh Gill, Maharshi Dayanand University, Rohtak.	Collaboration And Communication Tools	https://youtu.be/XsUC9H7jKSY
11	Dr. Madhuri Hooda, Maharshi Dayanand University, Rohtak	Presentation Software	https://youtu.be/5sVToAs3yRs
12	Prof. Nasib Singh Gill, Maharshi Dayanand University, Rohtak	Course Management System/Tools	https://youtu.be/fPXI8r6g-RM https://youtu.be/y1Y5mJ-mVDA https://youtu.be/WvsWdLqr1ig https://youtu.be/WvsWdLqr1ig https://youtu.be/4fimLRCrNf4
13	Prof. Nasib Singh Gill, Maharshi Dayanand University, Rohtak	Digital Assessment Tools	https://youtu.be/ypg7GXmG4Dg https://youtu.be/ypg7GXmG4Dg
14	Dr. Madhuri Hooda, Maharshi Dayanand University, Rohtak	Concept and Need of Open Education Resources	https://youtu.be/Q8tGDKxXadM
15	Dr. Madhuri Hooda, Maharshi Dayanand University, Rohtak	OERs in Present Scenario of Indian Education	https://youtu.be/swXztHz-p3Q
16	Dr. Madhuri Hooda, Maharshi Dayanand University, Rohtak	LICENSING OF OERS	https://youtu.be/rH53iHizq9Q
18	Dr. Madhuri Hooda,	Using OERs	https://youtu.be/H4zSOd4kqFE

	Maharshi Dayanand University, Rohtak	Effectively and Its Licensing	
19	Prof. Nishi Sethi, Associate Director, Training (Retd.) CCS Haryana Agricultural University, Hisar, Haryana	Planning and Scripting for Video Making (Pre-Production)	https://youtu.be/okM4VIABRlU
20	Prof. Nishi Sethi, Associate Director, Training (Retd.) CCS Haryana Agricultural University, Hisar, Haryana	Recording and on camera Presentation Techniques for Video Production	https://youtu.be/79iBm45ccT8
21	Prof. Nishi Sethi, Associate Director, Training (Rtd.) CCS Haryana Agricultural University, Hisar, Haryana	Video editing techniques and its evaluation (Post-Production Phase)	https://youtu.be/ocoZlG6PRr4
22	Dr. Nisha Singh, Deputy Director, IUC, IGNOU, New Delhi	Conceptual Foundation of E – Content	https://youtu.be/JD4NRHaK6SY
23	Dr. Nisha Singh, Deputy Director, IUC, IGNOU, New Delhi	Design and Development Of E-Content	https://youtu.be/-3dj5bFEARY
24	Dr. Nisha Singh, Deputy Director, IGNOU, New Delhi	E-Content Tools	https://youtu.be/QEfaNUM8gD4
25	Prof. Umesh Arya, Guru Jambheshwar University of Science & Technology, Hisar	Effective Googling	https://youtu.be/S5joWfylczU
26	Dr. Jyoti Rana, DAV College, Faridabad, Haryana	Identify a Research Topic & Learn How to Write a Quality Research Paper	https://youtu.be/Dhw46x9pA24
27	Prof. Umesh Arya, Guru Jambheshwar University of Science & Technology, Hisar	Fact Checking & Data Verification Database Management	https://youtu.be/Z5nrrzMEvfw https://youtu.be/7x7VYEQ0H_s
29	Prof. V. K. Garg, Central University of Punjab, Bathinda, Punjab	Digital Initiative in Higher Education	https://youtu.be/o7nUILFbAQ8
30	Prof. V. K. Garg, Central University of Punjab, Bathinda, Punjab	Research Publications and Research Quality Indicators Part 1 Part 2	https://youtu.be/F-RpIUjFeZE https://youtu.be/skjxM9kr3r4
31	Dr. Jyanti Dutta, Panjab University, Chandigarh	Organizing Your Literature:	https://youtu.be/B8Z_K7RPy2U

		Spreadsheet Style	
32	Dr. Neeraj Kumar Singh, Deputy Librarian Panjab University, Chandigarh	Reference Management Software's	https://youtu.be/gxcn0dviz5s
33	Dr. Jyanti Dutta, Panjab University, Chandigarh	Mechanisms of Paper and Thesis writing with Integration of Technology	https://youtu.be/O-J96nUTmfs

3. SWAYAM MOOCs

The Ministry of Human Resource Development has launched the Annual Refresher Programme in Teaching (ARPIT), a major and unique initiative of online professional development of 1.5 million higher education faculty using the MOOCs platform SWAYAM. For implementing the ARPIT, 75 discipline-specific National Resource Centers (NRCs) have been identified in the first phase which is tasked to prepare online training material with a focus on the latest developments in the discipline, new & emerging trends, pedagogical improvements, and methodologies for transacting revised curriculum.

In 2018, before the Corona period, 75 NRCs were selected covering a wide range of disciplines that cover Basic Sciences, Social Sciences, Applied Sciences, Engineering and Technology, Humanities, Management, Commerce, Education, Education Planning and Administration, Public Policy, Leadership & Governance, Library & Information Science, Astronomy & Astrophysics, Assessment and Evaluation, Pedagogy and research methods, cutting edge areas of Nano Sciences, Internet of Things, etc. Through these technology based Refresher Courses, all stakeholders including in-service teachers been given the opportunity to participate and sharpen their knowledge and skills with regard to the latest development in their disciplines. These programs are highly flexible and can be done at one's own pace and time. The basic objective of this ARPIT was to revalorize the professional development of teachers with mass-level programs by leveraging technology through Online Platform i.e., SWAYAM. The whole design and structure of the program were based on its strict guidelines under the AICTE.

The course consists of a 40-hour module with 20 hours of video content and 20 hours of non-video content. There were built-in assessment exercises and activities as part of the academic progression in the course. At the end of the course, they were a terminal assessment which was an online examination in a proctored environment conducted by the National Testing Agency. All faculties who have successfully completed the online refresher course have been certified. All in-service teachers, irrespective of their subject and seniority were requested to register and complete these refresher courses which helped them in career advancement. ARPIT course of 40 hours is treated as equivalent to one Refresher Course for Career Advancement Scheme (CAS) for promotion (UGC communication No. F.2- 16/2002(PS) Pt.fI.II dated 3rd December 2018). A varied set of institutions under the Ministry's Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) located in Central Universities, IISc, IUCAA, IITs, IISERs, NITs, State Universities; UGC's Human Resource Development Centers (HRDCs), National Institutes for Technical Teachers Training (NITTTRs), IIITs have been notified as NRCs.

Recognition of HRDC GJUS&T Hisar as NRC National Resource Centre

HRDC GJUS&T Hisar has been selected as National Resource Centre for Pedagogical (NRC) Innovations and Research Methodology. It has covered three cycles of MOOC in 2018, 2019 and 2020 successfully. Almost 9000 learners participated in the course in total.

ARPIT COURSE FOR PEDAGOGICAL INNOVATIONS AND RESEARCH METHODOLOGY. 2018

- **Institute Name**:   Guru Jambheshwar University of Science & Technology, Hisar, Haryana
- **Course Name:** Pedagogical Innovations and Research Methodology (Interdisciplinary)
- **Course Discipline:** Refresher Course in Information Communication Technology (Interdisciplinary)
- **Course Coordinator:** Prof. Vandana Punia, Dean, Faculty of Education, Guru Jambheshwar University of Science & Technology, Hisar, Haryana
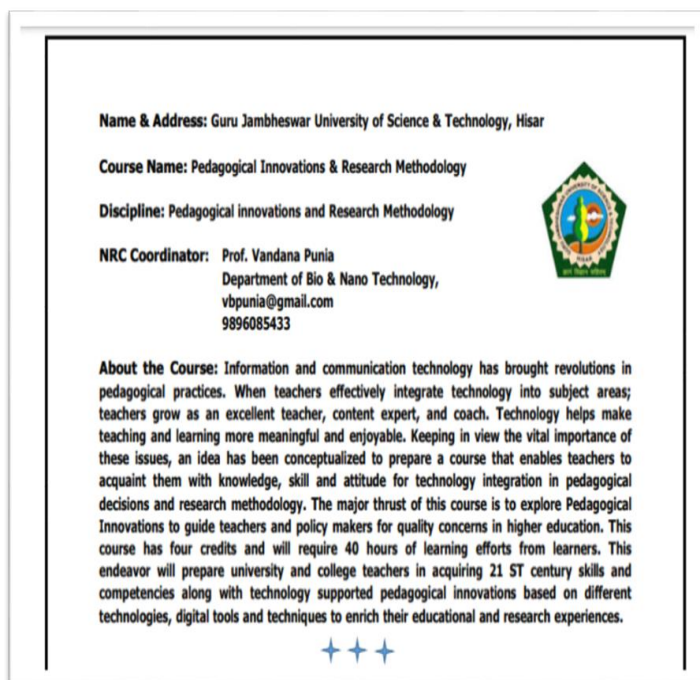
REPORT ON ARPIT Course for Pedagogical Innovations and Research Methodology, 2018 (Cycle 1)

About the Course

Information and communication technology has brought revolutions in pedagogical practices. When the teachers effectively integrate technology into subject areas; the teachers grow as excellence at par, content experts, and coaches. Technology helps in making teaching and learning more meaningful and enjoyable. Keeping in view the vital importance of these issues, an idea has been conceptualized to prepare a course that enables teachers to acquaint them with knowledge, skill, and attitude for technology integration in pedagogical decisions and research methodology. The major thrust of this course was to explore Pedagogical Innovations to guide teachers and policymakers regarding quality concerns in higher education. This course has four credits and will require 40 hours of learning effort from learners. This endeavor will prepare university and college teachers in acquiring 21st century skills and competencies along with technology supported pedagogical innovations based on different technologies, digital tools, and techniques to enrich their educational and research experiences.

Vandana Punia is currently working as Dean, Faculty of Education and Professor in the Human Resource Development Centre, Guru Jambheshwar University of Science & Technology, Hisar was the course coordinator of ARPIT, 2018.

Objectives of the Course

The important objectives of this course were:

- Preparing Teachers for 21st Century Skills
- Digital Pedagogy: Voice of Future Classrooms
- Conceptual understanding of E-content, E-Resources, etc.
- Pedagogical Innovations and Research Methodology.

Duration of the Course

The duration of the course was 16 weeks. It had been started from November 1, 2018 to March 31, 2019. However, based on the requests of learners and the decision of the course team, it was extended till April 30, 2019.

Enrolments in the Course:

This course was aimed at teachers, students, and research scholars from various disciplines of higher education in general and teacher education institutions in particular. Total Registered learners were 625.

Course Contents

The course comprised of four segments and consists of 40 Modules.

Segment 1: Preparing Teachers for 21st Century Skills

Module 1. Pedagogical Innovation; Conceptual Framework

Module 2: Rethinking Pedagogy for the twenty-first century

Module 3: Defining 21st Century Skills, Pedagogical Knowledge, Professional Development

Module 4: Appropriate Learning apparatus in New Pedagogy

Module 5: Digital Competencies among Teachers

Module 6: Redefine Teacher Roles and Functions

Module 7: Cloud Computing: Technology Supported Pedagogical Innovation

Module 8: Mobile Learning; Technology Supported Pedagogical Innovation

Module 9: Personal Learning Environments; Technology Supported Pedagogical Innovation

Module 10: Hybrid learning & Web 2.0 Technology Supported Pedagogical Innovation

Segment 2: Digital Pedagogy: Voice of Future Class Rooms

Module 11: Exploring Digital Pedagogy as Sound Pedagogy

Module 12: Digital Learning Environment\

Module 13: Technological Pedagogical & Content Knowledge (TPACK)

Module 14: Digital Bloom Taxonomy

Module 15: Utilization of Digital Tools and Techniques

Module 16: Collaboration and Communication Digital Tools Part1

Module 17: Collaboration and Communication Digital Tools Part 2

Module 18: Presentation Software

Module 19: Course Management Tools

Module 20: Digital Assessment Tools

Segment 3: Conceptual understanding of E-content, E-Resources etc.

Module 21. Conceptual foundation of E-content

Module 22: Development of E-Content

Module 23: Content Creation Tool

Module 24: Planning and scripting for video making.docx

Module 25: Video editing techniques and its evaluation

Module 26: Recording and on Camera Presentation Techniques for Video Production

Module 27: Photos as an Educational Experience

Module 28: Concept and Need of Open Education Resources

Module 29: OERs in Present Scenario of Indian Education

Module 30: LICENSING OF OERS and Using OERs Effectively and Its Licensing

Segment 4: Pedagogical Innovations and Research Methodology.

Module 31. Identify a Research Topic & learn how to write a quality research Paper

Module 32: Fact Checking & Data Verification

Module 33: Effective Goggling

Module 34: Database Management

Module 35: Digital Initiative in Higher Education

Module 36: Research Publications and Research Quality indicators Part 1

Module 37: Organizing Your Literature: Spreadsheet Style

Module 38: Research Publications and Research Quality indicators Part 2

Module 39: Reference Management Software

Module 40: Research Publications and Research Quality indicators Part 1

The mandate for this online MOOC course: (Instructional Design & Implementation)

There were 40 Modules in the program. Each module consisted of videos, pdfs, and assignments.

This was mandatory for every learner to go through all content materials.

This program was of 16 weeks. Every week two or three modules consisting of videos and e-content were released.

After watching the videos and studying e-content, there was a provision of learning assessment which was an essential part of learner feedback. There were 16 assignments. This was just for moving to next week schedule.

There was also a provision for internal and external marks to get certificates. It was 70 and 30 percent proportion. Therefore, there were 7 internal assessments which were mandatory for all learners. These assessments were of 30 marks.

The learners had full freedom or they were not restricted to the following calendar. They could go through the content according to their time, pace and speed.

After completing all material, there was a written test of 70 marks which had been conducted by the National Testing Agency and learners had to secure 50 percent marks for getting the certificate.

As discussed earlier, the four-quadrant approach of MOOC was taken up for implementation in this course. The course consisted of 40-hour modules with 20 hours of video content and 20 hours of non-video content. There were built-in assessment exercises and activities as part of the academic progression in the course. At the end of the course, there was a terminal assessment which was an online examination in a proctored environment conducted by the National Testing Agency.

The instructional materials designed and developed exclusively for this MOOC were E-Text & Videos, Discussions, Activities, and Assignments. Additional resource materials (video and e-tests) relevant to the theme of the module and themes of each week were provided to learners on the resource page on a week-to-week basis. Relevant UGC guidelines for the development of MOOCs and regulations related to SWAYAM were also provided as resources. The content material was prepared by a galaxy of intellectuals across the country.

ARPIT COURSE FOR PEDAGOGICAL INNOVATIONS AND RESEARCH METHODOLOGY- 2019

HRDC GJUS&T, Hisar again got the opportunity to design ARPIT Course for Pedagogical Innovations and Research Methodology. 2019 with a new dynamism and great vigor.

Pedagogical Innovations And Research Methodology (Interdisciplinary)

By Prof. Vandana Punia | Guru Jambeshwar university of Science &Technology Hisar, Haryana

Learners enrolled: 4395

Summary

Course Status :	Completed
Course Type :	Core
Duration :	16 weeks
Start Date :	01 Oct 2019
End Date :	31 Jan 2020
Exam Date :	16 Feb 2020 IST
Category :	• Annual Refresher Programme in Teaching (ARPIT)
Credit Points :	4
Level :	None

This is an AICTE approved FDP course

21st century is of digital native. In this era, Pedagogy, Transaction and Evaluation along with Flip class rooms Approach is equipped with technological supported pedagogical innovations. Digital skills and competencies will always be the ground which education of 21st century will grow and thrive. So this is need of the hour that teachers should focus on digital competence to explore new pedagogical innovations and new endeavours of Research methodology. Educational needs of learners are changing faster than teachers can cope up with. We teachers have to welcome technology into our class rooms equipping students with new experiences. Technology helps make teaching, learning and research more meaningful and enjoyable. There are number of powerful technology tools in the class room learning that teachers can use in the classroom that go beyond to the text books. Technology has a way of keeping students motivated as well as engaged in what they are learning. It also has the ability to change the reluctant learners into

https://onlinecourses.swayam2.ac.in/arp19_ap72/preview

Name & Address:	Guru Jambheshwar University of Science & Technology, Hisar Haryana
Course Name:	Pedagogical Innovations and Research Methodology (Interdisciplinary)
Discipline:	Pedagogical Innovations and Research Methodology (Interdisciplinary)
NRC Coordinator:	Prof. Vandana Punia Development Centre, Guru Jambheshwar University of Science & Technology, Hisar Haryana vbpunia@gmail.com +91 9896085433 Dr. Neeraj Dilbaghi, Director (UGC- Human Resource Development Centre), Professor, Department of Bio & Nano Technology, Guru Jambheshwar University of Science & Technology, Hisar- 125001 ndnano@gmail.com +911662-263500

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REPORT ON ARPIT Course for Pedagogical Innovations and Research Methodology, 2019 (Cycle 2)

About the Course

The utmost requirement of 21st century pedagogy is digital learning experiences. UNESCO stated that Education systems need to regularly update and reform teacher preparation and professional development, ensuring that all teachers can harness technology for teaching excellence. In this era, Pedagogy, Transaction, and Evaluation along with the Flipped classrooms approach are equipped with technologically supported pedagogical innovations. Digital skills and competencies will always be the ground which education of the 21st century will grow and thrive. Hence, this is the need of the hour that teachers should focus on digital competence to explore new pedagogical innovations and new endeavors of Research Methodology. There are several powerful technology tools in classroom learning that teachers can use in the classroom that go beyond textbooks. Keeping in view the vital importance of these issues, an idea has been conceptualized to prepare a course that enables teachers to acquaint them with knowledge, skill and attitude for technology integration in pedagogical decisions and research methodology. The major thrust of this course is to explore Pedagogical Innovations to guide teachers and policymakers regarding quality concerns in higher education. After completion of this course, teachers feel more confident and competent in using digital technology in their academic and

professional endeavors. At last, in this course, our primary focus was on learning technology and Pedagogy. Teachers from all streams could join this course.

Objectives of the Course:

The important objectives of this course were:

- Preparing Teachers for 21st-Century Skills
- Digital Learning Experiences: Voice of Future Classrooms
- Conceptual understanding of E-content, E-Resources, etc.
- Research Endeavors with the Integration of Technology

Duration of the Course: The duration of the course was also of 16 weeks starting from October 01, 2019 to March 31, 2020. However, based on the request of learners and the decision of the course team it was extended till April 30, 2020.

Enrolment in the Course Target Group: This course was aimed at teachers, students, and research scholars from various disciplines of higher education in general and teacher education institutions in particular. Total Registered learners were 4500.

Course Mandate: There were 40 Modules in the program. Each Module consisted of videos, pdfs, and assignments. It was mandatory for every learner to go through all content materials. This program was 16 weekly program. Every week two or three modules consisting of videos and e-content were released. After watching videos and studying e-content, there was the provision of learning assessment which was an essential part of learners' feedback. This was just for moving to next week schedule. There were 16 assignments. There was also the provision of internal and external marks to get the certificates. It was 70 and 30 percent proportion. So, there were 7 internal assessments that were mandatory for all learners. These assessments were of 30 marks. The learners had full freedom or they were not restricted to follow a calendar. They could go through the content according to their time, pace and speed. After completing all material there was written test of 70 marks which had conducted by the National Testing Agency and learners had to secure 50 percent marks for getting a certificate

Course Contents: The course comprised of four segments and consists of 40 Modules.

Segment 1: Preparing Teachers for 21st Century Skills

Module 1: Concept of Pedagogical Innovations and its seven Notions

Module 2: Innovative Ideas for 21st century Education

Module 3: Pedagogical Innovations with the use of ICT

Module 4: Digital Assessment Tools (KAHOOT & Padlet)

Module 5: Digital Technologies in Class Room

Module 6: Web Based Pedagogy

Module 7: Brainstorming as a Pedagogical Tool for Creativity

Module 8: Webinar as a Pedagogical Tool for Virtual Learning Environments

Module 9: UNESCO ICT Competency Framework for Teachers

Module 10: Digital Literacy and its related Concepts

Segment 2: Digital Learning Experiences: Voice of Future Class rooms

Module 11: Digital Storytelling as a Powerful Tool for 21st Century Pedagogy

Module 12: Techno-skills in Teachers of Higher Education

Module 13: MOOCs for Higher Education

Module 14: Need to Recognize Emotions and Creativity in Pedagogies

Module 15: New ideas for Designing Innovative Pedagogies, Social Emotions And Creativity

Module 16: Web Data Scraping

Module 17: Development of Moodle Site and Course Structure 1

Module 18: Development of Moodle Site and Course Structure 2

Module 19: Development of Moodle Site and Course Structure 3

Module 20: Browser Extensions for Enhanced Digital Skills

Segment 3: Conceptual understanding of E-Content, E-Resources etc.

Module 21: Flipped Classrooms

Module 22: Pedagogical Researches

Module 23: Tweet Capturing and Analysis – (TCA)

Module 24: Open Educational Resources: An Introduction

Module 25: Searching and Evaluating Open Source Content

Module 26: Preparing 21st century Students for a Global Society

Module 27: Best Practices in Use of Technology to Integrate Core Skills into Course Content

Module 28: Pedagogic Theories and the Use of Technologies for Learning and Applications

Module 29: Various Instructional Strategies and its Application on Content

Module 30: Teachers' Pedagogical Knowledge and Teaching Profession

Segment 4: • Research Endeavours with Integration of Technology

Module 31: Adapting, Using and Sharing Open Educational Resources

Module 32: Understanding Plagiarism and its Deterrence Tools: Need of the Hour for Academic and Research Community

Module 33: Role of University Grants Commission Regulations 2018 in Addressing and Curbing the Plagiarism in HEIs

Module 34: An Introduction to Reference Management and Citation

Module 35: Mastering Academic Writing Skills

Module 36: Formulation of Winning Research Grant Proposal

Module 37; Innovation and Quality in Thesis Writing – I
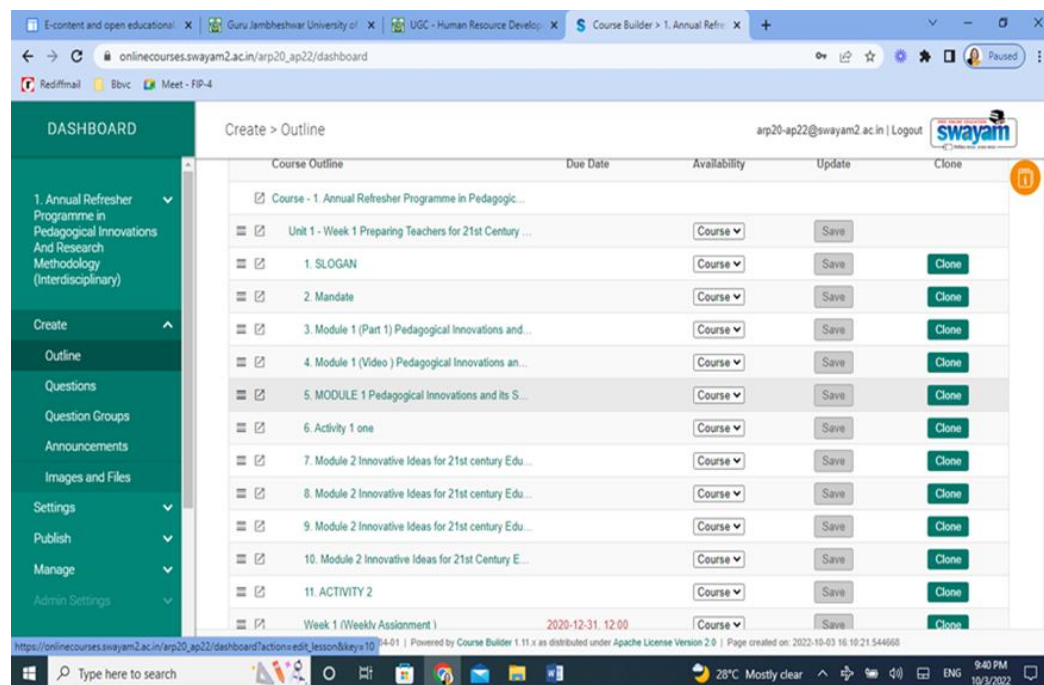
Module 38: Innovation and Quality in Thesis Writing – II

Module 39: Author Metrics

Module 40: Journal Metrics

Mode of the course: Mode of the course is Course Builder Learning Management system. This is the interface of the course. https://onlinecourses.swayam2.ac.in/arp20_ap22/course

This is the homepage or dashboard.

Instructional Design & Implementation

The four-quadrant approach of MOOC was taken up for implementation in this course. The course consisted of a 40 hours module with 20 hours of video content and 20 hours of non-video content. There were built-in assessment exercises and activities as part of the academic progression in the course. At the end of the course, there was a terminal assessment which was an online examination in a proctored environment conducted by the National Testing Agency. The instructional materials designed and developed exclusively for this MOOC were E-Text & Videos, Discussions, Activities, and Assignments.

Videos of the course:
https://www.youtube.com/channel/UCcPdN0aVKroV7jkNBYwEAAg/videos

E-Text; https://sites.google.com/a/aicte-india.org/swayamrepo/pedagogical-innovations-and-research-methodology-interdisciplinary

Sample of built-in assessment exercises:

Sample of Activities:

Evaluation: At the end of the course, there was a terminal assessment which was an online examination in a proctored environment conducted by the National Testing Agency. The instructional materials designed and developed exclusively for this MOOC were E-Text & Videos, Discussions, Activities, and Assignments. The successful learners got certificates.

Sample of Certificate:
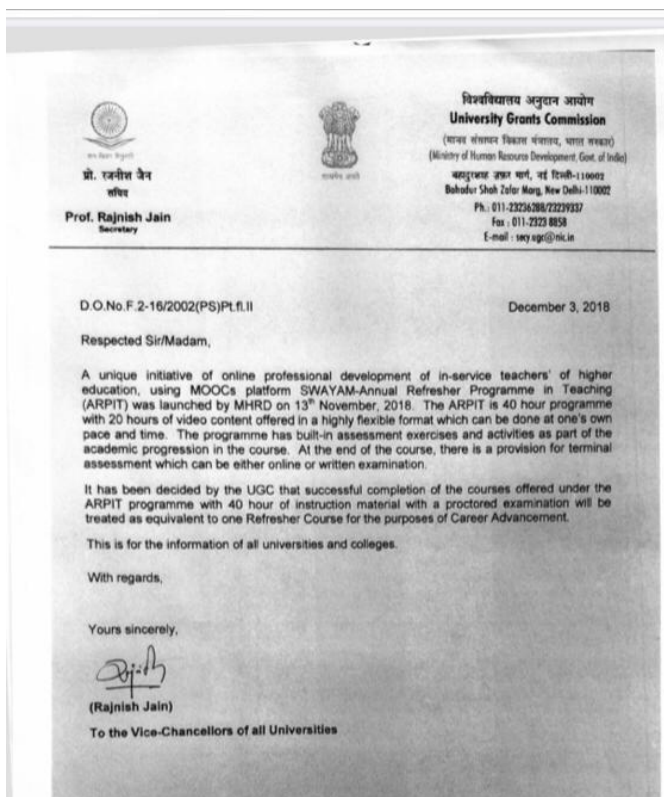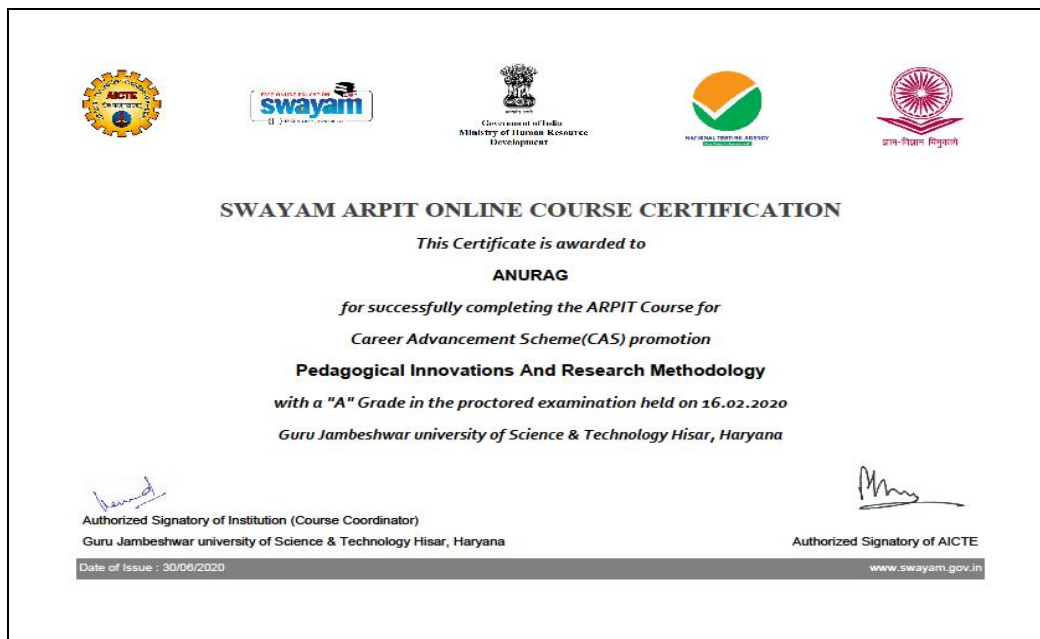
One thing which is pertinent to mention here that this course has its advantage not just as professional or skill development but beyond this. The earned certificate will help teaches in career advancement since it is a Refresher course.

ARPIT course of 40 hours/duration is treated as equivalent to one Refresher Course for Career Advancement Scheme (CAS) for promotion (UGC communication No. F.2- 16/2002(PS) Pt.fI.II dated 3rd December, 2018).

In 2020, when Covid-19 knocked on the threshold of learning organizations and everything had stopped, we had witnessed of online teaching as a blessing in disguise. With the blessings of Almighty, the MOOC Course on Pedagogical Innovations and Research Methodology 2020 had brought great laurels with this voice which came from the academic community that the "Pedagogical Innovations and Research Methodology Course" had visualized the solutions to academic concerns which had been raised by situations during the pandemic in academic concerns. Since this is a re-run of ARPIT 2019 as ARPIT 2020 course, accordingly only assignments and assessments with new learning experiences had been revised. The Modules and e-contents were reutilized with a new outlook.

About the Course:

In Indian Educational Context, COVID-19 has given a big push to educational experiences to move forcibly into the virtual learning environment. It is clear that due to the pandemic, online learning has become now a necessity. And necessity is not the mother of invention but also innovations, so the same had happened with online learning systems. This Pandemic has led to the adoption of digital skills for facilitating 21st education and has brought a new analysis of SWOC for teaching technologies with reference to digital technologies. Basically, this course was based on exploring digital skills with reference to 21st century educational experiences. Digital skills and competencies will always be on the ground in which education of the 21st century will grow and thrive. Teachers are now mentally prepared to utilize modern digital tools and techniques to harness the potential possibilities of e-learning technologies. Now, there is a great need to handle e-learning technologies with expertise in pedagogical practices. Using technology in teaching and learning is now a mandate or essential concern for institutions and teachers also.

Therefore, this is the need of the hour that teachers should focus on digital competence to explore new pedagogical innovations and new endeavors of Research Methodology. Teachers must know how to integrate technology into pedagogical practices with specific references to enhance critical understanding, creativity, innovation, communication, and collaboration. There are several powerful technology tools in classroom learning so that teachers can use in the classroom that go beyond textbooks. Technology has a way of keeping students motivated as well as engaged in what they are learning. Keeping in view the vital importance of these issues, an idea has been conceptualized to prepare a course that enables teachers to acquaint them with knowledge, skill and attitude for technology integration in pedagogical decisions and research methodology. The major thrust of this course was to explore Pedagogical Innovations to guide teachers and policymakers regarding quality concerns in higher education. Teachers from all streams could join this course.

Objectives of the Course:

The important objectives of this course were:

- Preparing Teachers for 21st Century Skills
- Digital Learning Experiences: Voice of Future Classrooms
- Conceptual understanding of E-content, E-Resources
- Research Endeavors with the Integration of Technology

Duration of the Course

The duration of the course was also of 16 weeks starting from November 01, 2019 to March 31 2021. However, based on the requests of learners and the decision of the course team it had been extended till April 30, 2021.

Enrolments in the Course:

This course was aimed at teachers, students, and research scholars from various disciplines of higher education in general and teacher education institutions in particular. The total registered learners were 4500.

Mode of the course:

The mode of the course was the Course Builder Learning Management System and interface of the course was https://onlinecourses.swayam2.ac.in/arp20_ap22/course.

Instructional Design & Implementation with Evaluation and Certification:

The four-quadrant approach of MOOC was taken up for implementation in this course. The course consisted of a 40-hour module with 20 hours of video content and 20 hours of non-video content. There were built-in assessment exercises and activities as part of the academic progression in the course. At the end of the course, there was a terminal assessment which was an online examination in a proctored environment conducted by the National Testing Agency. The instructional materials designed and developed exclusively for this MOOC were E-Text & Videos, Discussions, Activities, and Assignments. The same criteria had been opted for in this course also to get the certificate as per MHRD guidelines.

4. MOOCs (International Perspective)

Massive open online courses are now emerging as a prerequisite for 21st century learning standards. After gaining rich experience in designing, developing, and delivering MOOCs under the flagship of the Ministry of Education, Govt. of India, New Delhi, a proposal had been accepted by the University of Nova Gorica and UNESCO Chair on Open Technologies for Open Educational Resources (OER) and Open Learning at the Jožef Stefan Institute under the flagship of Open Education for a better world mentoring program for developing a MOOC on Emergency Remote Teaching: Response of Pandemic Pedagogy as a New Normal Teaching.

OPEN EDUCATION for a BETTER WORLD

To whom it may concern

Date: 12.4.2022

CONFIRMATION LETTER

We confirm that **Dr. Vandana Punia**, professor at Guru Jambeshwar University of S&T Hisar, was accepted to the »Open Education for a Better World« mentoring program, which is organized by University of Nova Gorica and UNESCO Chair on Open Technologies for Open Educational Resources (OER) and Open Learning at the Jožef Stefan Institute.

Dr Vandana Punia will develop an Open Educational Resource with title *"Emergency Remote Teaching Plan: Preparedness and Response of Pandemic Pedagogy as a New Normal Teaching"* under the mentorship of **Dr. Lay Kee Ch'Ng**, from Kydon Learning Systems Sdn Bhd.

Open Education for a Better World is a tuition-free, half year-long programme for participants from all background, regions and continents with the potential and desire to employ Open Educational Resources to solve large scale and relevant problems important in relation to today's global landscape. It involves successful applicants that have been paired with experts who act as their mentors for the half calendar year.

Yours sincerely,

Mag. Mitja Jermol
UNESCO Chair on Open Technologies for Open Educational Resources and Open Learning at Jožef Stefan Institute, Open Education for a Better World program coordinator

Prof.dr. Tanja Urbančič
Dean of School of Engineering and Management at
University of Nova Gorica, Open Education for a Better World program coordinator

About the Course:

John Dewey rightly said that we do not learn from experiences… we learn from reflecting on experiences.

The COVID-19 crisis has generated a new and advanced model of teaching i.e., Emergence of Remote Teaching. This emergence of remote teaching is moving instructions online for educational institutions to design flexible instructional design processes to manage crises due to emergency systems. Every institution must have an institutional emergency teaching plan where all instructional materials and courses can be redesigned to fit the requirement of the emergency environment. It is required a pedagogical approach, meticulous planning, and instructional design. It involves choices and decisions related to instructional objectives, learning outcomes, content materials, assessments, assignments, and learning activities. While designing this type of framework, it must have a reflexive teaching approach and know-how to use experience based learning techniques to stimulate reflections on experience to redesign the learning environment. The main thrust of this program was to explore conceptual foundation, instructional design, delivery mechanisms, crisis management, and benchmark proposals for high performing organizations. This course would prepare the school, university, and college teachers in acquiring 21st century skills and competence along with technology supported pedagogical innovations based on different technologies, digital tools, and techniques to enrich their emergence remote teaching experiences. This course was designed for aspiring the pre-service, in-service teachers and policymakers to explore the emergence of remote teaching experiences with the integration of technology with the humanistic approach in educational institutions' Emergency Remote Teaching Plans.

Source Link: https://oe4bw.miteam.si/asset/jKFZ49xoCCyGmiNYn

Course Poster:

Duration of the Course: This course had two credits which required 25 hours of learning effort from learners. After completion of the course, the learner got the certificate. There were necessary and mandatory requirements to complete the course. The course started on April 20, 2022, and ended on June 1, 2022.

Modules in the course:

There were five Modules.

- Module 1: Understand conceptual foundation of Emergence Remote Teaching
- Module 2: Pedagogical Approach and Instructional Designs for Emergency Remote Teaching
- Module 3: Remote Teaching Tool Kit
- Module 4: Benchmark for excellent Remote Teaching plan
- Module 5: Educational Crisis Management Plan

About the Weekly Modules: Emergency Remote Teaching: Response of Pandemic Pedagogy as a New Normal Teaching MOOC had worked for 5 weeks. Further, each Sunday we had uploaded new weekly modules. As and when it had been released, the learners have started their work. All modules were stayed open until the end of the course. Learners could complete their work at their speed and pace, each module follows the same structure:

- Introductory Video
- Main Video
- Slides
- Pdfs

Activity & Quizzes

About the quizzes: Each module ends with a quiz to test your learning and understanding of the main concepts of the week. Each quiz has 10 multiple choice questions; to qualify for a Certificate of Participation, you will need to score at least 6 out of 10 on each quiz.

About the certificates: If you complete the required activities for this course, you can earn a Certificate of Completion. The Certificate of Participation requires completing all 5 quizzes with a score of at least 6 out of 10. Try to earn at least this certificate; you can take the quizzes several times as you need to. Early release of Certificates of Participation may begin in the final week of the course.

In this two-credit course, there are eight videos, 12 pdfs and five assignments to support the learners to achieve learner outcome. Besides this, there are sufficient reading material in form of e-books, web links, research papers and articles. There are reflections and self exercises also to grab knowledge and skills.

Videos:

- https://youtu.be/ld9Yu-adVhc
- https://youtu.be/VeEB-TJGHJ4
- https://youtu.be/-3dj5bFEARY
- https://youtu.be/JD4NRHaK6SY
- https://youtu.be/1Grlot5PZoE
- https://youtu.be/XCndwVsD6HE
- https://youtu.be/KQHp3Xrob14
- https://youtu.be/tN-iH7xTKeY

Assignment Quizzes

- https://canvas.instructure.com/courses/4577453/quizzes/10850708
- https://canvas.instructure.com/courses/4577453/quizzes/10916935
- https://canvas.instructure.com/courses/4577453/quizzes/10992544
- https://canvas.instructure.com/courses/4577453/quizzes/11075973
- https://canvas.instructure.com/courses/4577453/quizzes/11118182
- https://canvas.instructure.com/courses/4577453/quizzes/11171102

Practice Quizzes

- https://canvas.instructure.com/courses/4577453/quizzes/10885272
- https://canvas.instructure.com/courses/4577453/quizzes/10889978
- https://canvas.instructure.com/courses/4577453/quizzes/10889908
- https://canvas.instructure.com/courses/4577453/quizzes/10870833

- https://canvas.instructure.com/courses/4577453/quizzes/10889884
- https://canvas.instructure.com/courses/4577453/quizzes/10889931
- https://canvas.instructure.com/courses/4577453/quizzes/10889959
- https://canvas.instructure.com/courses/4577453/quizzes/10953895
- https://canvas.instructure.com/courses/4577453/quizzes/10953729
- https://canvas.instructure.com/courses/4577453/quizzes/11004470
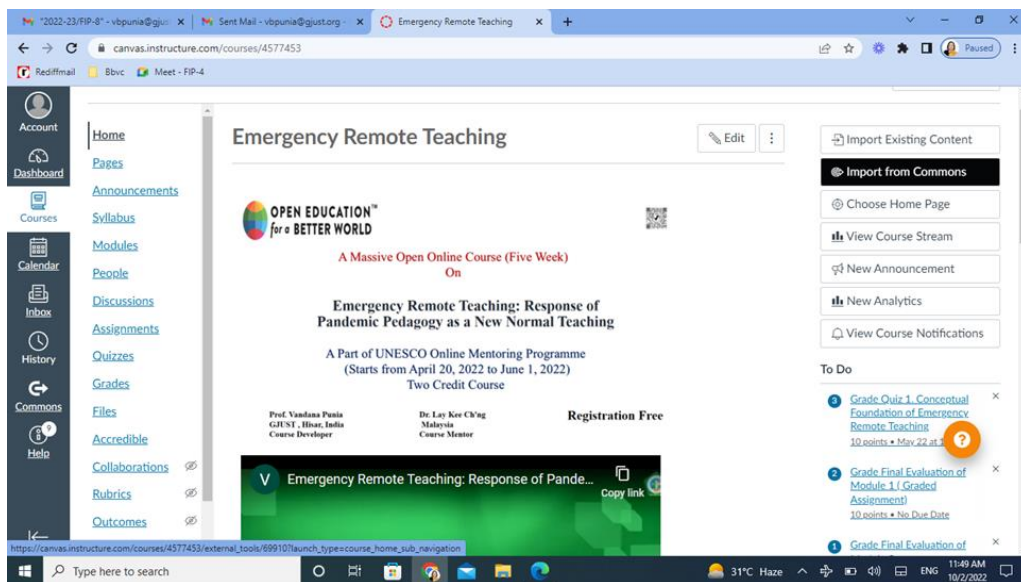- https://canvas.instructure.com/courses/4577453/quizzes/11114505

Platform

The mode of the class is CANVAS.   Link of the course mentioned below:
https://canvas.instructure.com/enroll/4RG6HW
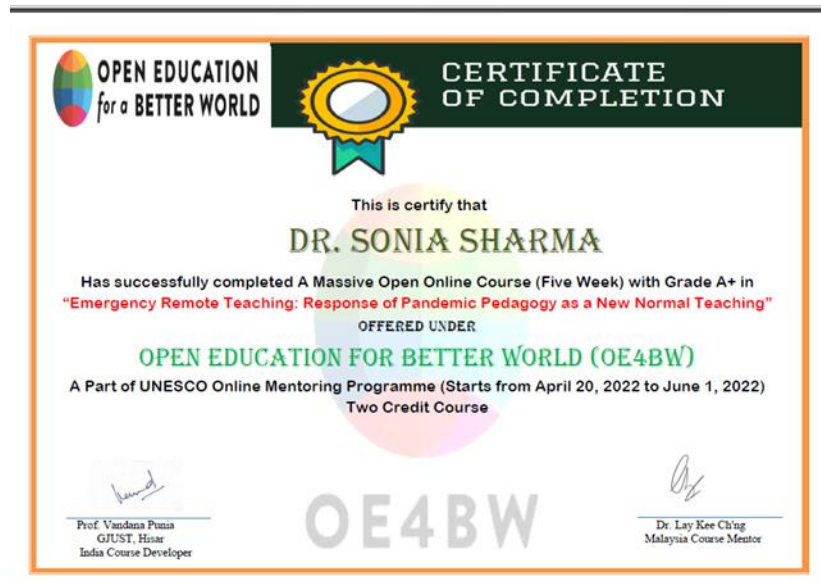
Course Image: This is the course image.
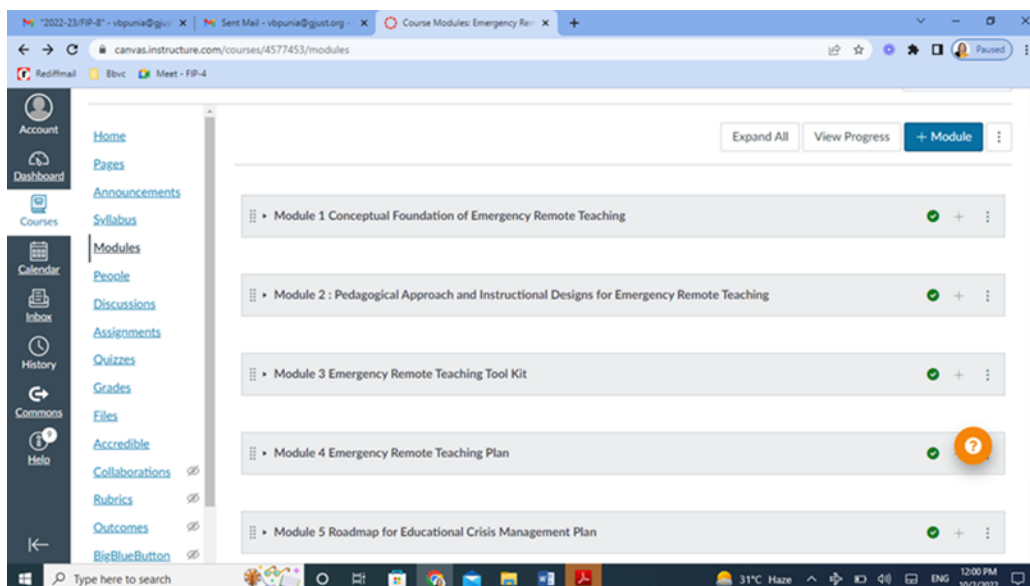
Numbers of learners registered: Total 320 participants
Number of learners who got certificates: 116 participants.

Sample Certificate:

Feed Back form of learners: Google form link mentioned below:

https://docs.google.com/forms/d/1K_S65TUkzhwY4Z8u5_TcCcPF-mDmENUF9wZR-q2t-ww/edit?usp=sharing

After receiving feedback from the learners, the followings are the outcome of the course.

Strength of the course as per learners' responses:

The content of the e-tutorial is well organized. The speed at which the content in the video is delivered matches the student's pace of learning. The e-tutorials can be completed within the allotted time period. E-tutorial provides self-assessment with the help of reflective-level questions or quizzes. The principle of the simple to complex is followed in the organization of course contents. The mode of discussion was a discussion forum, live sessions, and prerecorded videos with pdfs. Participants are satisfied with the E- tutorials. Even Some participants demanded more live sessions.

The course content helps students in a deeper understanding of the concepts. The learner's previous knowledge is activated and connected with the course content to prepare them for building upon the new knowledge. All four quadrants promote higher order of thinking. The course design is appropriate. Evaluations is done by MCQs, assignments, and discussions thread.

Course Design: The presentation and demonstration style of the course content helps to sustain the attention of students. The course design empowers students to apply the knowledge in a real-

life situation. The course design and activities included in the four quadrants attain the learning outcomes. There is compatibility among the content of course design among all four quadrants. E-Books, Illustrations, Case studies, Presentations, Web Resources, OERs Contents, Research papers & articles, and Videos for further reference had been utilized.

About Motivation and Engagements: The learners get motivated when they recognize their own progress in learning. They found this MOOC interesting. The curriculum is relevant to your field of study. The Website is easy to navigate. The course has a good and consistent level of quality. To sustain learner engagement and satisfaction, there are Assignment Quizzes, Practice Quizzes, Reflections, and Activities. There are almost more than 25 activities total in the course. Each module consists of various activities to enhance learner engagement and motivation.

Some highlights of presentations made by learners

Course developed by learners'

- Dr. Neeru - https://canvas.instructure.com/enroll/FEYD9M
- Dr. Reena - URL: https://canvas.instructure.com/enroll/PKGYYY.
- Dr. Anisha - URL: https://canvas.instructure.com/enroll/XXWH7X.
- Dr. Suman Ranga - https://canvas.instructure.com/enroll/YY8CF6.

5. Blog & Online Radio

Blogging is now widely used in educational institutions and its institutional potential has been acknowledged. HRDC GJUS&T, Hisar has developed *THE INSPIRATIONS* blog for enriching and strengthening the writing skill of teachers and students. This blog has been inaugurated by former vice chancellor Prof. Tankeshwar with a mission to polish the skills as well as sensitize the academia for new innovations and explorations in academic, teaching, research and extension services. Till now this blog has almost 8500 viewers and 24 followers.

Link; https://hrdcascgju.blogspot.com/
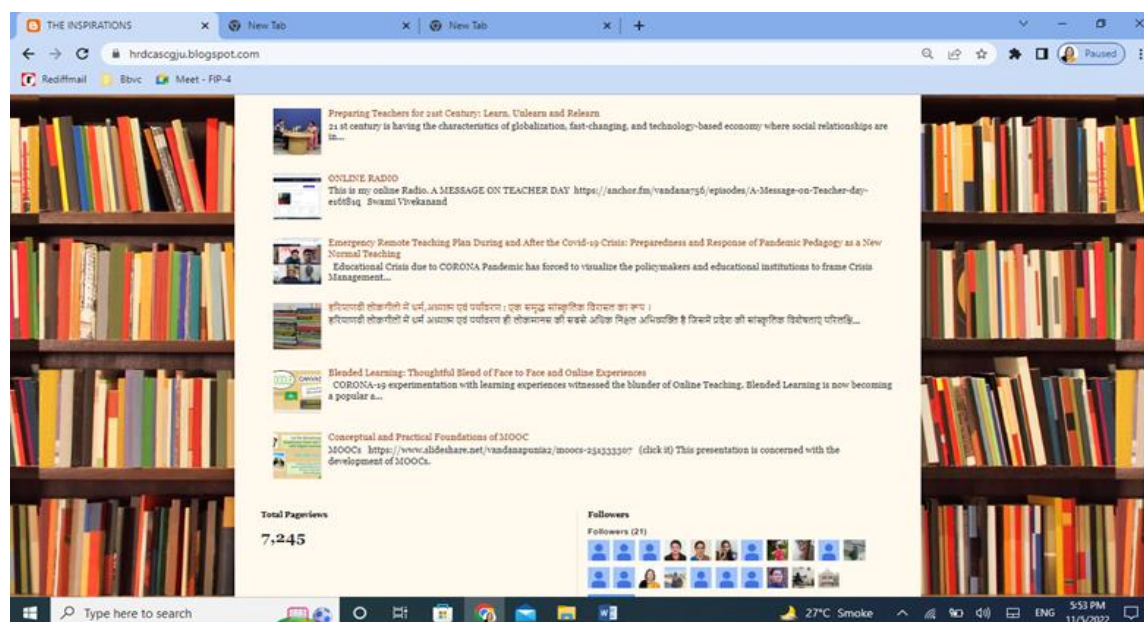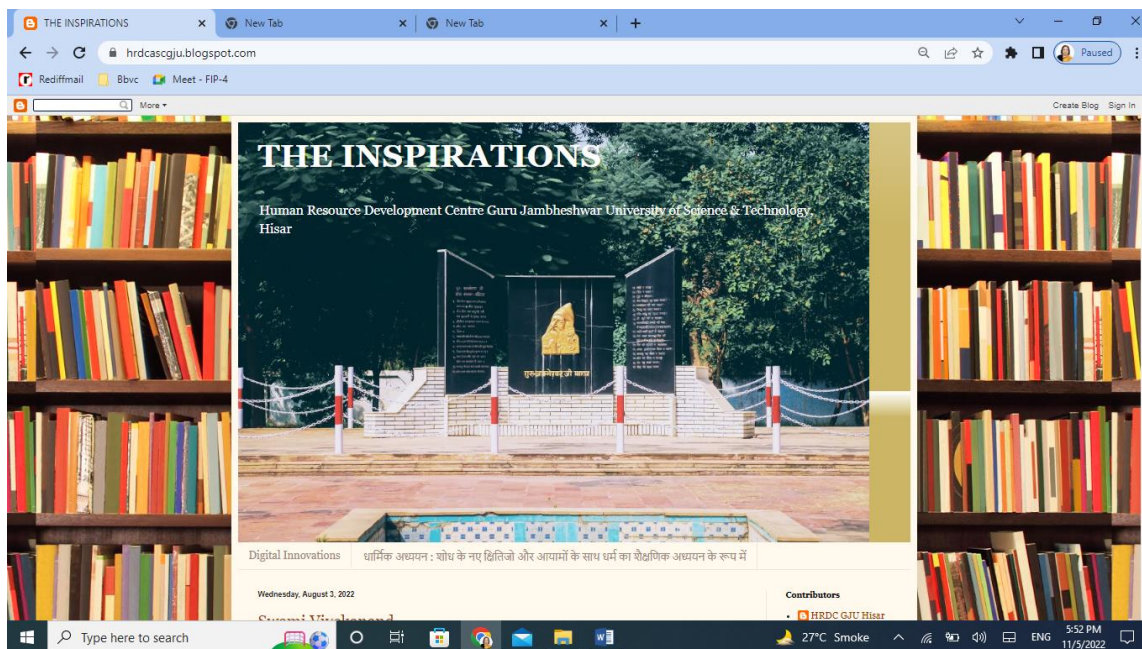
This is side bar of the blog where we can see its contributors. There are different labels like stories of COVID-19, develop and deliver MOOC, Dharma and Shiksha, Digital Education, New Education Policy 2020, Pedagogical Instructions, Reflections of HRDC programmes etc. World is not limited only these labels; we are now extending its horizons for many other labels. We had started this blog in 2020 and almost 27 posts are uploaded till now.
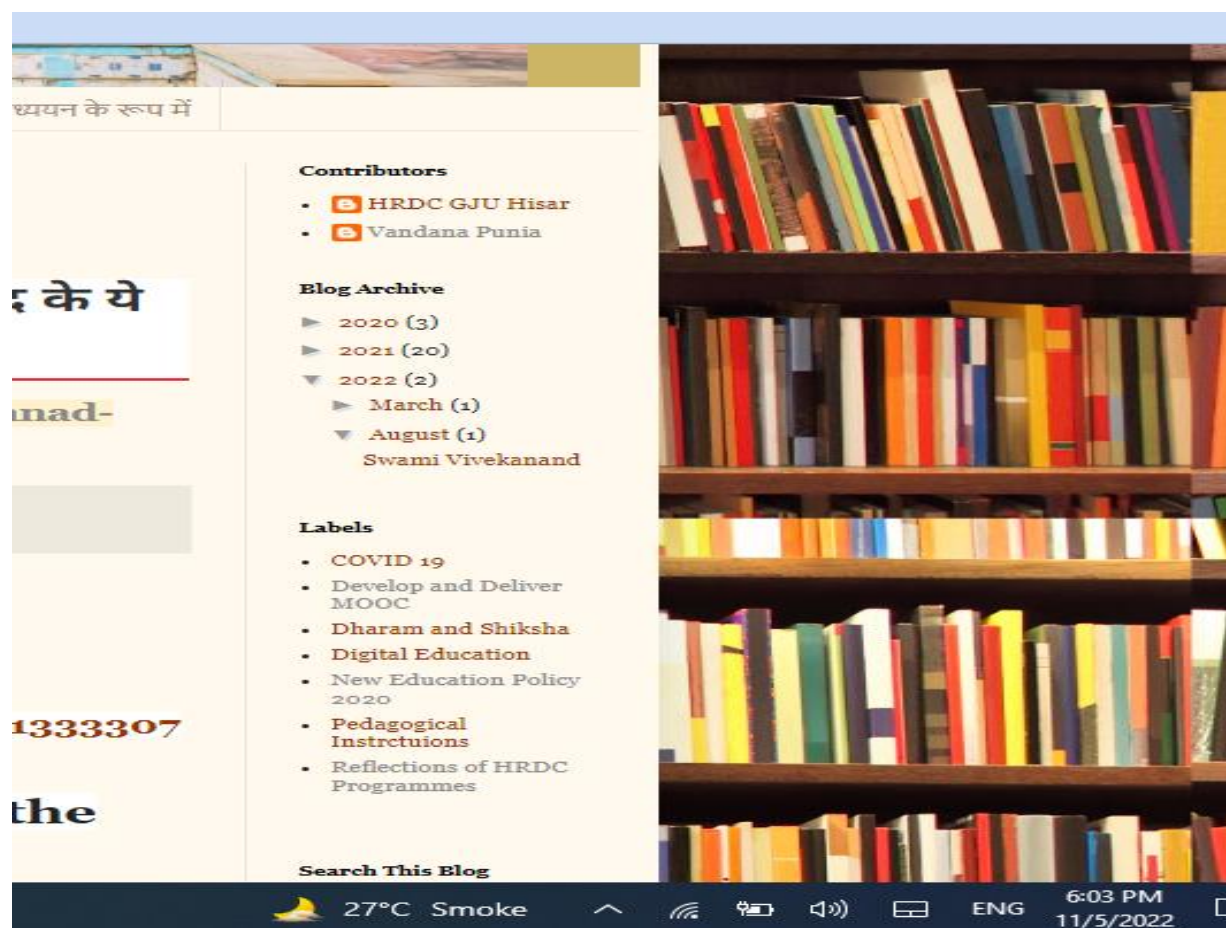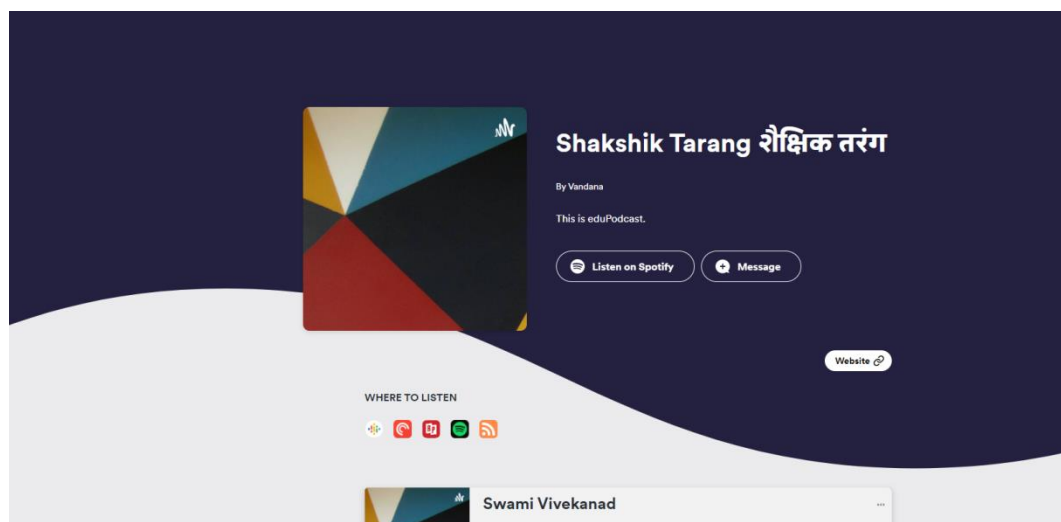

Online radio;

Online radio is either pre-recorded MP3 files or lives, via-a-microphone broadcasts that are streamed over the Internet. HRDC GJUS&T, Hisar has its own online Radio *Shakshik Tarang* *शैक्षिक तरंग* **based** on ANCHOR by SOPITIFY.COM.

Link of Online Radio:

- https://anchor.fm/vandana756,
- https://open.spotify.com/show/1lK4wznaAySg7KeaM4PDrZ
- https://spotifyanchor-web.app.link/e/Ls6sBlrPJtb

The Way Forward

Digital learning initiatives are highly useful in generating hybrid learning environments for learning organizations. This was an appreciable effort done by the Ministry of Education, Government of India, New Delhi to provide opportunities to HRDCs to develop, design, and deliver MOOCs in form of ARPIT Courses before the Pandemic starts. There were workshops, seminars, and hands-on sessions to train course coordinators for developing e-content and provision of grants also for the smooth functioning of these initiatives. This is a pertinent fact that in pandemic situations, these resources were best utilized by teachers and learners in the beginning stage. With huge encouragement from learned colleagues, HRDC GJUS&T, Hisar is now in a position to create e-content and generate its own Digital Repository and disseminate this unique educational experience not at the national level but to the global level also.